

Claims

1. A security system (100) having a camera (3) for taking pictures of
5 objects, the security system (100) including at least one subsystem (101,
102), characterized in that the first subsystem (101) includes a first function
module (1) with a light source whose brightness is controllable, a second
function module (6) for generating a digital image sequence from pictures
taken by the camera (3), and a third function module (8) for deriving the
10 noise variance as a function of the gray value from the digital image
sequence.
2. The security system as defined by claim 1, characterized in that the
security system (100) includes a memory (9), in which the function values of
15 the noise variance can be stored in memory as a function of the gray value.
3. The security system as defined by one of the foregoing claims,
characterized in that the second subsystem (102) includes a function
module (13) for comparing a gray value variance, derived from pictures
20 taken by the camera, with a predeterminable threshold value.
4. A method for operating a security system (100), including a camera
for taking pictures of objects, characterized in that the method includes a
first operating state (initializing phase) and a second operating state
25 (operating phase).
5. The method as defined by one of the foregoing claims, characterized
in that in the first operating state of the security system (100), the noise
variance is ascertained as a function of the gray value of an image sensor

(4) located in the camera (3) and is stored in a memory (9).

6. The method as defined by one of the foregoing claims, characterized in that for ascertaining the noise variance as a function of the gray value,
5 the camera (3) including the image sensor (4) is subjected to the radiation of a light source.

7. The method as defined by one of the foregoing claims, characterized in that the light source is controlled such that the brightness of the light
10 source is increased in small increments as a function of time and then after each increase is kept constant for a predeterminable length of time, so that a kind of stairstep curve for the functional dependency of the brightness of the light source on the time is created.

15 8. The method as defined by one of the foregoing claims, characterized in that the light source, varied in steps in its brightness, is recorded by the camera (3); that the image sensor (4) of the camera (3) converts the pictures taken into a digital image sequence; and that from this image sequence, a functional relationship representing the noise variance as a
20 function of the gray value is derived and is stored in the memory (9).

9. The method as defined by one of the foregoing claims, characterized in that in the second operating state
of the security system (100), images of a region to be secured are taken by
25 the camera (3), and these images are examined for the presence of moving objects in the region to be secured.

10. The method as defined by one of the foregoing claims, characterized in that from chronologically successive pictures of the region

to be secured, the gray value variance for at least selected pixels is ascertained; that if a deviation is found, a comparison with a threshold value is made, and this threshold value is predetermined variably as a function of the gray value.

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11. The method as defined by one of the foregoing claims, characterized in that the variable threshold value is read out from values stored in the memory (9).

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12. The method as defined by one of the foregoing claims, characterized in that the dependency of the noise variance on the gray value is ascertained for different parameters of the camera (3) and is stored as a function value in the memory device (9).